

Replace the paragraph beginning at page 1, line 22 with:

a2
It has been reported that there are the optimal load conditions for high-efficiency operation in input high frequency loads. For example, Japanese Patent No. 2695395 titled "High Frequency Power Amplifier" discloses that the control of input-side higher harmonics is effective for improving drain efficiency; the input-side higher harmonic control circuit has a resonance frequency with respect to frequencies lower than the frequency of the 2nd harmonic; there are optimal load conditions in the input impedance range of $(0 + j4 \Omega)$, $(0 + j25 \Omega)$, $(5 + j25 \Omega)$, and $(5 + j4 \Omega)$; and the efficiency of operation can be higher when the impedance of the 2nd harmonic is set in a low range. Here, higher harmonics, each of which has a frequency that is an odd-number multiple of the fundamental frequency, are called odd number higher harmonics; and higher harmonics, each of which has a frequency that is an even-number multiple of the fundamental frequency, are called even number higher harmonics.

Replace the paragraph beginning at page 2, line 10 with:

a3
As described above, conventional circuit configurations for realizing high efficiency operation of transistors in a high frequency power amplifier have a problem in that the circuit configurations are limited to make the input-side even-number higher harmonic load of the impedance matching circuit a short-circuit load.

Replace the paragraph beginning at page 2, line 15 with:

a4
Furthermore, such a high frequency power amplifier has a problem in that the higher the frequency of a signal, that is the higher the order of the harmonics, the smaller the amplitude of the higher harmonics reflected from the higher harmonic processing circuit until the higher harmonics reach the input end of the transistor due to propagation loss in a line, and sufficient reflection cannot be obtained.

Replace the paragraph beginning at page 3, line 29 with:

a5
Fig. 1 shows a circuit configuration of a high frequency power amplifier in a First Embodiment of the present invention.